

## Naming Alkanes – Worksheet #1

Name the following branched alkanes:

1.	$  \begin{array}{c}  \text{H}_3\text{C}-\text{CH}-\text{CH}_3 \\    \\  \text{CH}_3  \end{array}  $	
2.	$  \begin{array}{c}  \text{H}_3\text{C}-\text{CH}-\text{CH}_3 \\    \\  \text{CH}_2-\text{CH}_3  \end{array}  $	
3.	$  \begin{array}{c}  \text{H}_3\text{C}-\text{CH}_2-\text{CH}_2-\text{CH}-\text{CH}_2-\text{CH}_2-\text{CH}_3 \\    \\  \text{CH}_2-\text{CH}_3  \end{array}  $	
4.	$  \begin{array}{c}  \text{CH}_2-\text{CH}_3 \\    \\  \text{H}_3\text{C}-\text{CH}_2-\text{CH}_2-\text{CH}-\text{CH}-\text{CH}_2-\text{CH}_3 \\    \\  \text{CH}_3  \end{array}  $	
5.	$  \begin{array}{c}  \text{H}_3\text{C}-\text{CH}_2-\text{CH}-\text{CH}_2-\text{CH}-\text{CH}_2-\text{CH}_3 \\    \qquad \qquad   \\  \text{CH}_3 \qquad \text{CH}_2-\text{CH}_2-\text{CH}_3  \end{array}  $	
6.	$  \begin{array}{c}  \text{H}_3\text{C}-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{CH}_2 \\    \\  \text{H}_3\text{C}-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{C}-\text{CH}_2-\text{CH}_3 \\    \\  \text{CH}_3  \end{array}  $	
7.	$  \begin{array}{c}  \text{CH}_2-\text{CH}_2-\text{CH}_3 \\    \\  \text{H}_2\text{C}-\text{CH}-\text{CH}_2-\text{CH}-\text{CH}_3 \\    \qquad \qquad   \\  \text{CH}_3 \qquad \text{CH}_2-\text{CH}_2-\text{CH}_3  \end{array}  $	

**Draw structural formulas for the following molecules. Remember the following:**

- Carbons on the end of a chain are attached to three hydrogens
- Carbons in the middle of a chain are attached to two hydrogens
- Carbons that have one branch attached are also attached to one hydrogen
- Carbons that have two branches attached are not attached to any hydrogens.

8. 4-ethyloctane

9. 2-methylnonane

10. 2, 2-dimethylpentane

11. 3-ethylpentane

12. 3, 4-dimethyloctane